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# Manitoba Centre for Health Policy

# Baby Friendly Initiative Ten Steps: Quality Improvement with a kick!

Nathan C. Nickel, MPH, PhD

February 28, 2013


University of Manitoba

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# Outline for Today's Talk

- Why Breastfeeding?
- What are the Ten Steps to Successful Breastfeeding?
- Do the Ten Steps to Successful Breastfeeding make a difference?
- Is my hospital "ready" for the Ten Steps?
- What are some strategies for implementing the Ten Steps?

# Why Breastfeeding?

# Why Breastfeeding?—Child Health Benefits

- Agency for Healthcare Research and Quality Review of 400+ studies.
  - Acute Otitis Media
  - Atopic Dermatitis
  - Gastrointestinal Infections
  - Lower Respiratory Infections
  - Obesity
  - Diabetes
  - Sudden Infant Death Syndrome

# Why Breastfeeding?—Maternal Health Benefits

- Agency for Healthcare Research and Quality:
  - Maternal Type 2 Diabetes
  - Breast Cancer
  - Ovarian Cancer
- Other Studies:
  - Never Breastfeeding→ Increased risk for hypertension (Stuebe, 2011)
  - Never Breastfeeding→ Increased risk for premenopausal cancer (Stuebe, 2009)
  - Never Breastfeeding→ Increased risk for cardiovascular disease (Schwarz, 2009).

# Why Breastfeeding?—Economics

- Pediatric Cost Analysis estimated that not breastfeeding costs billions of dollars, annually (Bartick, 2010).

- Preliminary results suggest not breastfeeding is associated with significant maternal health costs.

# What are the Ten Steps to Successful Breastfeeding?

# What are the Ten Steps to Successful Breastfeeding?

- By the mid-20th Century prevalent maternity practices created barriers to breastfeeding

- In 1989, the World Health Organization and UNICEF issued a joint statement on maternity care:

"Protecting, promoting, and supporting breast-feeding: the special role of maternity services"

- Statement included the Ten Steps to Successful Breastfeeding

# What are the Ten Steps to Successful Breastfeeding?

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.

2. Train all health care staff in skills necessary to implement this policy.

3. Inform all pregnant women about the benefits and management of breastfeeding.

4. Help mothers initiate breastfeeding within the first hour of birth.

5. Show mothers how to breastfeed and how to maintain lactation even if they should be separated from their infants.

# What are the Ten Steps to Successful Breastfeeding?

6. Give newborn infants no food or drink, other than human milk, unless medically indicated.

7. Practice rooming-in—that is, allow mothers and infants to remain together 24 hours a day.

8. Encourage breastfeeding on demand.

9. Give no artificial nipples or pacifiers to breastfeeding infants.

10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

# What are the Ten Steps to Successful Breastfeeding?

- In 1990 representatives from several multi-lateral and bi-lateral organizations and from over 30 countries met in Innocenti, Italy.

- Drafted the Innocenti Declaration on the Protection, Promotion, and Support of Breastfeeding.

- Operational Target:

  By 1995 all signatory governments ensure that every centre/facility providing maternity care fully practice **all Ten Steps**.

# What are the Ten Steps to Successful Breastfeeding?

- WHO and UNICEF launched the Baby-friendly Hospital Initiative (BFHI) in 1991 in response to the Innocenti Declaration.
- Comprehensive, global strategy to protect, promote and support breastfeeding—Including, but not limited to the Ten Steps.
- At the Country-Level: Baby-friendly is associated with increased breastfeeding rates (Abrahams & Labbok, 2009).
- More than 20,000 facilities have received Baby-friendly designation.

# Do the Ten Steps to Successful Breastfeeding make a difference?

# Promotion of Breastfeeding Intervention Trial (PROBIT)

## A Randomized Trial in the Republic of Belarus

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for the PROBIT Study Group

**Context** Current evidence that breastfeeding is beneficial for infant and child health is based exclusively on observational studies. Potential sources of bias in such studies have led to doubts about the magnitude of these health benefits in industrialized countries.

**Objective** To assess the effects of breastfeeding promotion on breastfeeding duration and exclusivity and gastrointestinal and respiratory infection and atopic eczema among infants.

**Design** The Promotion of Breastfeeding Intervention Trial (PROBIT), a cluster-randomized trial conducted June 1996–December 1997 with a 1-year follow-up.

**Setting** Thirty-one maternity hospitals and polyclinics in the Republic of Belarus.

**Participants** A total of 17 046 mother-infant pairs consisting of full-term singleton infants weighing at least 2500 g and their healthy mothers who intended to breastfeed, 16 491 (96.7%) of which completed the entire 12 months of follow-up.

**Interventions** Sites were randomly assigned to receive an experimental intervention (n = 16) modeled on the Baby-Friendly Hospital Initiative of the World Health Organization and United Nations Children's Fund, which emphasizes health care worker assistance with initiating and maintaining breastfeeding and lactation and postnatal breastfeeding support, or a control intervention (n = 15) of continuing usual infant feeding practices and policies.

**Main Outcome Measures** Duration of any breastfeeding, prevalence of predominant and exclusive breastfeeding at 3 and 6 months of life and occurrence of 1 or more episodes of gastrointestinal tract infection, 2 or more episodes of respiratory tract infection, and atopic eczema during the first 12 months of life, compared between the intervention and control groups.

**Results** Infants from the intervention sites were significantly more likely than control infants to be breastfed to any degree at 12 months (19.7% vs 11.4%; adjusted odds ratio [OR], 0.47; 95% confidence interval [CI], 0.32-0.69), were more likely to be exclusively breastfed at 3 months (43.3% vs 6.4%; $P<.001$) and at 6 months (7.9% vs 0.6%; $P=.01$), and had a significant reduction in the risk of 1 or more gastrointestinal tract infections (9.1% vs 13.2%; adjusted OR, 0.60; 95% CI, 0.40-0.91) and of atopic eczema (3.3% vs 6.3%; adjusted OR, 0.54; 95% CI, 0.31-0.95), but no significant reduction in respiratory tract infection (intervention group, 39.2%; control group, 39.4%; adjusted OR, 0.87; 95% CI, 0.59-1.28).

**Conclusions** Our experimental intervention increased the duration and degree (exclusivity) of breastfeeding and decreased the risk of gastrointestinal tract infection and atopic eczema in the first year of life. These results provide a solid scientific underpinning for future interventions to promote breastfeeding.

*JAMA. 2001;285:413-420* www.jama.com

BREASTFEEDING HAS BEEN WIDELY reported to reduce the risk of infection[1-11] and atopic disease[1,12-15] in the recipient infant and child. The effect of breastfeeding in protecting against infection is more striking, and thus easier to demonstrate, in settings where poverty, malnutrition, and poor hygiene are preva-

**See also p 463 and Patient Page.**

Author Affiliations and other participating members of the PROBIT Study Group are listed at the end of this article.

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# Do the Ten Steps make a difference?

## Promotion of Breastfeeding Intervention Trial (PROBIT)

### A Randomized Trial in the Republic of Belarus

Michael S. Kramer, MD
Beverley Chalmers, PhD

**Context** Current evidence that breastfeeding is beneficial for infant and child health is based exclusively on observational studies. Potential sources of bias in such studies

| | Baby-friendly | Not Baby-friendly |
|---|---|---|
| 3 Month Exclusive BF | 43.3% | 6.4% |
| 6 Month Exclusive BF | 7.9% | 0.6% |
| 12 Month Any BF | 19.7% | 11.4% |

SUPPLEMENT ARTICLE

# Effect of Maternity-Care Practices on Breastfeeding

**Ann M. DiGirolamo, PhD, MPH[a], Laurence M. Grummer-Strawn, PhD[b], Sara B. Fein, PhD[c]**

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The authors have indicated they have no financial relationships relevant to this article to disclose.

## ABSTRACT

OBJECTIVE. Our goal was to assess the impact of "Baby-Friendly" hospital practices and other maternity-care practices experienced by mothers on breastfeeding duration.

METHODS. This analysis of the Infant Feeding Practices Study II focused on mothers who initiated breastfeeding and intended prenatally to breastfeed for >2 months, with complete data on all variables ($n$ = 1907). Predictor variables included indicators of 6 "Baby-Friendly" practices (breastfeeding initiation within 1 hour of birth, giving only breast milk, rooming in, breastfeeding on demand, no pacifiers, fostering breastfeeding support groups) along with several other maternity-care practices. The main outcome measure was breastfeeding termination before 6 weeks.

RESULTS. Only 8.1% of the mothers experienced all 6 "Baby-Friendly" practices. The practices most consistently associated with breastfeeding beyond 6 weeks were initiation within 1 hour of birth, giving only breast milk, and not using pacifiers. Bringing the infant to the room for feeding at night if not rooming in and not giving pain medications to the mother during delivery were also protective against early breastfeeding termination. Compared with the mothers who experienced all 6 "Baby-Friendly" practices, mothers who experienced none were ~13 times more likely to stop breastfeeding early. Additional practices decreased the risk for early termination.

CONCLUSIONS. Increased "Baby-Friendly" hospital practices, along with several other maternity-care practices, improve the chances of breastfeeding beyond 6 weeks. The need to work with hospitals to implement these practices continues to exist, as illustrated by the small proportion of mothers who reported experiencing all 6 of the "Baby-Friendly" hospital practices measured in this study. *Pediatrics* 2008;122:S43–S49

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The findings and conclusions in this article are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention or the Food and Drug Administration.

**Key Words**
breast feeding, maternity, hospital

**Abbreviation**
IFPS—Infant Feeding Practices Study

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BREASTFEEDING PROVIDES MANY benefits to both infants and mothers, including optimal nutrients for infant growth and development, enhancing infants' immunologic defenses, and facilitating mother-infant attachment and mothers' recovery from childbirth.[1,2] However, despite the known benefits of breastfeeding, a substantial proportion of mothers do not breastfeed their infants or breastfeed for <6 months postpartum. In 2004, 73.8% of US mothers breastfed during the early postpartum period, and 41.5% continued to breastfeed at 6 months postpartum.[3] Although these findings represent a steady increase over the years in the percentage of women breastfeeding, the data still fall short of the national Healthy People 2010 goals of 75% women breastfeeding during the early postpartum period and 50% breastfeeding 6 months postpartum.[4]

Certain maternity-care practices in hospital settings have been shown to promote breastfeeding. In particular, the Baby-Friendly Hospital Initiative, a global movement launched in 1991 by the World Health Organization and the United Nations Children's Fund (UNICEF), has been associated with positive breastfeeding outcomes both nationally and internationally.[5–9] This initiative includes 10 steps to successful breastfeeding, including specific recommendations for maternity-care practices (Table 1). A 2001 national study that used data from the original Infant Feeding Practices Study (IFPS I) evaluated the influence of 5 of the 10 "Baby-Friendly" practices on breastfeeding. The study demonstrated significant associations between 2 of the 5 practices measured (initiating breastfeeding within 1 hour of birth and giving no food or drink other than breast milk) and breastfeeding and illustrated the cumulative effects of these 5 steps on positive breastfeeding outcomes.[10] The study also revealed that only a small percentage (7%) of women reported experiencing all 5 of the "Baby-Friendly" practices measured.

The purpose of the current study is to examine the current prevalence and the individual and cumulative influences of a greater number of "Baby-Friendly" hospital practices on breastfeeding duration among mothers who intended to breastfeed for at least 2 months postpartum. Specifically, using data from the IFPS II, the study provides an opportunity to assess changes in the prevalence of reported "Baby-Friendly" hospital practices since the admin-

# Do the Ten Steps make a difference?

SUPPLEMENT ARTICLE

## Effect of Maternity-Care Practices on Breastfeeding

Ann M. DiGirolamo, PhD, MPH[a], Laurence M. Grummer-Strawn, PhD[b], Sara B. Fein, PhD[c]

[a]Hubert Department of Global Health, Emory University, Atlanta, Georgia; [b]National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia; [c]Center for Food Safety and Applied Nutrition, Food and Drug Administration, US Department of Health and Human Services, College Park, Maryland

The authors have indicated they have no financial relationships relevant to this article to disclose.

- Initiate breastfeeding within 1hr after birth (Step 4).
- Not provide formula to breastfed infant (Step 6).
- Not provide a pacifier to breastfed infant (Step 9).

# Hospital Practices and Women's Likelihood of Fulfilling Their Intention to Exclusively Breastfeed

Eugene Declercq, PhD, Miriam H. Labbok, MD, MPH, Carol Sakala, PhD, MPH, and MaryAnn O'Hara, MD, MPH

*Objectives.* We sought to assess whether breastfeeding-related hospital practices reported by mothers were associated with achievement of their intentions to exclusively breastfeed.

*Methods.* We used data from Listening to Mothers II, a nationally representative survey of 1573 mothers who had given birth in a hospital to a singleton in 2005. Mothers were asked retrospectively about their breastfeeding intention, infant feeding at 1 week, and 7 hospital practices.

*Results.* Primiparas reported a substantial difference between their intention to exclusively breastfeed (70%) and this practice at 1 week (50%). They also reported hospital practices that conflicted with the Baby-Friendly Ten Steps, including supplementation (49%) and pacifier use (45%). Primiparas who delivered in hospitals that practiced 6 or 7 of the steps were 6 times more likely for achieve their intention to exclusively breastfeed than were those in hospitals that practiced none or 1 of the steps. Mothers who reported supplemental feedings for their infant were less likely to achieve their intention to exclusively breastfeed: primiparas (adjusted odds ratio [AOR]=4.4; 95% confidence interval [CI]=2.1, 9.3); multiparas (AOR=8.8; 95% CI=4.4, 17.6).

*Conclusions.* Hospitals should implement policies that support breastfeeding with particular attention to eliminating supplementation of healthy newborns. (*Am J Public Health.* 2009;99:929–935. doi:10.2105/AJPH.2008.135236)

Exclusive breastfeeding through at least the first 6 months is the physiologically appropriate approach to infant feeding.[1] Mixed or formula feeding carries with it increased risks of infection, developmental problems, mortality, and long-term ailments such as diabetes and cancers for mother and child.[2–5] In support of the evidence, the American Academy of Pediatrics,[6] American College of Obstetrics and Gynecology,[7] the American Public Health Association,[8] the World Health Organization,[9] and many other medical and health professional organizations[10–12] recommend that infants consume only mother's milk (exclusive breastfeeding) for at least the first 6 months of life, followed by continued breastfeeding with age-appropriate nutrient-rich complementary foods. The revised US Healthy People 2010 national objectives call for 17% of new mothers to be exclusively breastfeeding at 6 months.[13] Nonetheless, national statistics indicate that less than 12% of mother–baby pairs achieve this goal.[14]

The "Ten Steps for the Protection, Promotion and Support of Breastfeeding"[15] are the central part of the Baby-Friendly Hospital Initiative, along with adherence to the *International Code of Marketing of Breast-Milk Substitutes* and subsequent World Health Organization resolutions.[16] These practices have been reported to support breastfeeding behaviors and influence outcomes,[17,18] though in some cases they have been subjects of political disputes.[19] However, with the exception of a recent Centers for Disease Control and Prevention study[20] and some data from hospitals that have achieved "Baby-Friendly" status, little is known about the prevalence of these practices in hospitals across the United States.

Grizzard et al.[21] assessed Massachusetts hospitals and noted that hospitals with high or moderately high levels of implementation significantly differed from hospitals with partial implementation with respect to pacifier usage ($P=.002$) and postpartum breastfeeding instruction ($P<.001$). Acceptance of free formula was significantly associated ($P=.03$) with overall Ten Steps implementation. Although several international studies have concluded that even some progress toward "Baby-Friendly Hospital" status is associated with increases in breastfeeding, available US data[20] on the achievement of exclusive breastfeeding in relation to the number of steps in place are limited.

The goal of our study was to provide clinical and hospital administrative decision-makers with the information they need to institute policies and practices that enhance a woman's ability to achieve her intended duration of exclusive breastfeeding. We examined the results of a national survey that asked mothers about their feeding intentions "as [they] came to the end of [their] pregnancy" and their actual feeding patterns 1 week after the birth. We also asked mothers to report on their experiences with hospital practices known to influence breastfeeding success. Based on past research, we expected that hospital practices would be related to the fulfillment of a plan to exclusively breastfeed.

## METHODS

We present results from a 2006 national survey of 1573 women aged 18 to 45 years who had given birth in 2005 in a hospital to a singleton, still-living infant. The survey, entitled Listening to Mothers II,[22] was developed through a collaboration between Childbirth Connection and the Boston University School of Public Health and was conducted by Harris Interactive. The standard telephone sampling approach of random-digit dialing, though advantageous for reaching a diverse population, is not feasible for a national survey of new mothers because the number of US births (4 million annually) is small in proportion to the number of households (111 million); therefore, respondents were drawn from 2 other sources.

The Internet portion of the sample was drawn from Harris Interactive's ongoing Internet panel of more than 5 million individuals who agree to periodically participate in their surveys. To ensure a more representative overall sample, a telephone sample was also drawn. Respondents in this sample were

# Do the Ten Steps make a difference?

## Hospital Practices and Women's Likelihood of Fulfilling Their Intention to Exclusively Breastfeed

Eugene Declercq, PhD, Miriam H. Labbok, MD, MPH, Carol Sakala, PhD, MPH, and MaryAnn O'Hara, MD, MPH

- Initiate breastfeeding within 1hr after birth (Step 4).
- Not provide formula to breastfed infant (Step 6).
- Not provide a pacifier to breastfed infant (Step 9).
- Telling mother about community resources (Step 10).

*Original Research*

International Lactation Consultant Association
A Worldwide Network of Lactation Professionals

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# The Extent that Noncompliance with the Ten Steps to Successful Breastfeeding Influences Breastfeeding Duration

**Nathan Christopher Nickel, MPH, PhD[1], Miriam H. Labbok, MD, MPH, IBCLC[2], Michael G. Hudgens, MS, PhD[3], and Julie L. Daniels, MPH, PhD[4]**

## Abstract

**Background, Objectives:** The Ten Steps to Successful Breastfeeding are not, as yet, the norm in the United States. This study examined how noncompliance with each of the Steps, and combinations of 2 Steps, influence duration of breastfeeding at the breast.

**Methods:** Data were from the national Infant Feeding Practices Study II. The outcome was duration of any breastfeeding at the breast. Propensity scores modeled the probability of exposure to lacking 1 or more of the Ten Steps. Inverse probability weights controlled for confounding. Survival analyses estimated the relationship between the lack of a Step and breastfeeding duration.

**Results:** Lack of Step 6 (No human milk substitutes) was associated with shorter breastfeeding duration, compared with being exposed to Step 6 (10.5-wk decrease). Lack of both Steps 4 (Breastfeed within 1 hour after birth) and 9 (Pacifiers), together, was related to the greatest decrease in breastfeeding duration (11.8-wk decrease). The findings supported a dose-response relationship: being exposed to 6 Steps was related to the longest median duration (48.8 wk), followed by 4 or 5 Steps (39.8 wk), followed by 2 or 3 Steps (36.4 wk).

**Conclusions:** Prevalent US maternity care practices do not, as yet, include all of the Ten Steps. This lack of care may be associated with poor establishment of the physiological feedback systems that support sustained breastfeeding. Breastfeeding at the breast is compromised when specific combinations of Steps are lacking. Efforts to increase implementation of specific Steps and combinations of Steps may be associated with increased duration of breastfeeding.

## Keywords

Baby-friendly Hospital Initiative (BFHI), breastfeeding barriers, breastfeeding duration, epidemiology, health care, infant feeding, Ten Steps to Successful Breastfeeding

## Well Established

*The Ten Steps to Successful Breastfeeding are hospital-based practices shown to support breastfeeding both collectively and individually. However, normative maternity practices in the United States do not reflect the Ten Steps.*

## Newly Expressed

*This study examined the relationship between noncompliance with the Steps and duration of any breastfeeding at the breast. Propensity score methods were used. The study identified individual Steps and combinations of 2 Steps to target for implementation.*

## Background

Breastfeeding improves health and economic outcomes.[1-7] However, breastfeeding duration in the United States falls short of recommendations.[8,9] Efforts to achieve national goals might be more effective if they focused on those actions that support women in achieving recommended durations. The

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# Do the Ten Steps make a difference?

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*Original Research*

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**The Extent that Noncompliance with the Ten Steps to Successful Breastfeeding Influences Breastfeeding Duration**

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For Example:

Is feeding an infant according to a schedule associated with reduced duration of breastfeeding compared with feeding an infant according to hunger cues (Step 8)?

Not Providing Care Outlined in Step(s) compared with Providing Care Outlined in Step(s) (Nickel et al., 2013).

| Care Practices (Not Provide Step(s)) | Difference in Duration |
|---|---|
| Delay Initiation AND Provide a Pacifier (Not Provide Steps 4 and 9) | 11.8 weeks shorter |
| Provide Formula and/or Gift bags with Formula (Not Provide Step 6) | 10.5 weeks shorter |
| Feed on a Schedule AND Provide a Pacifier (Not Provide Steps 8 and 9) | 6.4 weeks shorter |

Not Providing Care Outlined in Step(s) compared with Providing Care Outlined in Step(s) (Nickel et al., 2013).

| Care Practices (Not Provide Step(s)) | Difference in Duration |
|---|---|
| Infant Stays in Nursery AND Feed on a Schedule (Not Provide Steps 7 and 8) | 5.7 weeks shorter |
| Provide Formula AND Feed on a Schedule (Not Provide Steps 6 and 8) | 5.7 weeks shorter |

# Do the Ten Steps make a difference?

- Taken together, the Ten Steps are a set of maternity practices that protect, promote, and support breastfeeding.

- Failing to provide the care outlined in the Steps creates barriers for the mother-infant dyad re: breastfeeding

- Individually, and in combinations of two, the Steps have a sustained impact on breastfeeding.

# Is my hospital "ready" for the Ten Steps?

# Is my hospital "ready" for the Ten Steps?

- Implementing the Ten Steps is an organizational process
  - Coordinate care across providers
  - Coordinate care across shifts
  - Coordinate care across departments
  - Collaborate with community

- Tough: Literature often refers to the process of implementing the Steps as "Climbing a Mountain."

Implementation Science

BioMed Central

Debate

Open Access

# A theory of organizational readiness for change

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## Abstract

**Background:** Change management experts have emphasized the importance of establishing organizational readiness for change and recommended various strategies for creating it. Although the advice seems reasonable, the scientific basis for it is limited. Unlike individual readiness for change, organizational readiness for change has not been subject to extensive theoretical development or empirical study. In this article, I conceptually define organizational readiness for change and develop a theory of its determinants and outcomes. I focus on the organizational level of analysis because many promising approaches to improving healthcare delivery entail collective behavior change in the form of systems redesign--that is, multiple, simultaneous changes in staffing, work flow, decision making, communication, and reward systems.

**Discussion:** Organizational readiness for change is a multi-level, multi-faceted construct. As an organization-level construct, readiness for change refers to organizational members' shared resolve to implement a change (change commitment) and shared belief in their collective capability to do so (change efficacy). Organizational readiness for change varies as a function of how much organizational members value the change and how favorably they appraise three key determinants of implementation capability: task demands, resource availability, and situational factors. When organizational readiness for change is high, organizational members are more likely to initiate change, exert greater effort, exhibit greater persistence, and display more cooperative behavior. The result is more effective implementation.

**Summary:** The theory described in this article treats organizational readiness as a shared psychological state in which organizational members feel committed to implementing an organizational change and confident in their collective abilities to do so. This way of thinking about organizational readiness is best suited for examining organizational changes where collective behavior change is necessary in order to effectively implement the change and, in some instances, for the change to produce anticipated benefits. Testing the theory would require further measurement development and careful sampling decisions. The theory offers a means of reconciling the structural and psychological views of organizational readiness found in the literature. Further, the theory suggests the possibility that the strategies that change management experts recommend are equifinal. That is, there is no 'one best way' to increase organizational readiness for change.

# Is my hospital "ready" for the Ten Steps?

Organizational Readiness to Change (Weiner, 2009)

- One reason that organizational change efforts are unsuccessful—Lack of organizational readiness.

- Change efforts need to adequately target and address readiness levels.

# Is my hospital "ready" for the Ten Steps?

Organizational Readiness to Change (Weiner, 2009)

Successfully implementing the Ten Steps is influenced by:

- Collective Commitment:

  Is everyone committed to implementing the Ten Steps?

- Collective Efficacy:

  Does everyone believe that they CAN implement the Ten Steps?

# Is my hospital "ready" for the Ten Steps?

- Which factors influence commitment to implement the Ten Steps at my hospital?
- Which factors influence efficacy (sense of ability) to implement the Ten Steps at my hospital?
- Factors:
  - Task Demands (e.g., Newborn Assessment and Skin-to-Skin)
  - Situational Factors (e.g., Management says, 'we will go Baby-friendly.')
  - Resource Availability (e.g., `We do not have enough IBCLCs.')

# Is my hospital "ready" for the Ten Steps?

- Information is used to inform/guide targeted intervention efforts.

- Aim to increase shared sense of ability to implement the Ten Steps.

- Aim to increase shared sense of commitment to implement the Ten Steps.

# What are some strategies for implementing the Ten Steps?

EXPLORER INNOVATOR PIONEER ADVENTURER VISIONARY TRAILBLAZER

# Breastfeeding-Friendly HEALTHCARE

*An Initiative of the* Carolina Global Breastfeeding Institute

Manitoba Centre for Health Policy | University of Manitoba

# Our Hospitals Need Help

## Breastfeeding-Friendly Healthcare Project

- Translational research project to support implementation of the 10 Steps
- Several North Carolina hospitals participating in project
- Hospitals divided into Phase 1 and Phase 2
- Hospitals received support for implementing the 10 Steps


NORTH CAROLINA
Ashe
Surry
Stokes
Caswell
Person
Warren
Vance
Granville
Halifax
Northampton
Hertford
Gates
Watauga
Wilkes
Yadkin
Forsyth
Guilford
Franklin
Bertie
Nash
Edgecombe
Washington
Tyrrell
Dare
Martin
Avery
Yancey
Caldwell
Alexander
Iredell
Davie
Davidson
Madison
McDowell
Burke
Catawba
Rowan
Randolph
Chatham
Wilson
Pitt
Beaufort
Hyde
Greene
Swain
Haywood
Buncombe
Graham
Henderson
Rutherford
Cleveland
Lincoln
Cabarrus
Lee
Harnett
Wayne
Craven
Pamlico
Jones
Cherokee
Clay
Polk
Mecklenburg
Stanly
Montgomery
Moore
Union
Anson
Richmond
Scotland
Robeson
Sampson
Duplin
Onslow
Bladen
Pender
Columbus
Brunswick
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## Breastfeeding-Friendly Healthcare Project

- 2009 Baseline Assessment
  - Maternity practices with respect to the Ten Steps
  - Breastfeeding Rates
  - How these vary by contextual factors.

# Implementing the Ten Steps for Successful Breastfeeding in Hospitals Serving Low-Wealth Patients

Emily C. Taylor, MPH, Nathan C. Nickel, PhD, MPH, and Miriam H. Labbok, MD, MPH

*Objectives.* The Ten Steps to Successful Breastfeeding is a proven approach to support breastfeeding in maternity settings; however, scant literature exists on the relative impact and interpretation of each step on breastfeeding. We assessed the Ten Steps and their relationship with in-hospital breastfeeding rates at facilities serving low-wealth populations and explored the outcomes to identify step-specific actions.

*Methods.* We present descriptive and nonparametric comparisons and qualitative findings to examine the relationship between the Ten Steps and breastfeeding rates from each hospital using baseline data collection.

*Results.* Some steps (1-policy, 2-training, 4-skin-to-skin, 6-no supplements, and 9-no artificial nipples, followed by 3-prenatal counseling, 7-rooming-in) reflected differences in relative baseline breastfeeding rates between settings. Key informant interviews revealed misunderstanding of some steps.

*Conclusions.* Self-appraisal may be less valid when not all elements of the criteria for evaluating Step implementation may be fully understood. Limited exposure and understanding may lead to self-appraisal errors, resulting in scores that are not reflective of actual practices. Nonetheless, the indication that breastfeeding rates may be better mirrored by a defined subset of steps may provide some constructive insight toward prioritizing implementation activities and simplifying assessment. These issues will be further explored in the next phase of this study. (*Am J Public Health.* 2012;102:2262–2268. doi:10.2105/AJPH.2012.300769)

UNICEF and the World Health Organization (WHO), along with USAID and Swedish International Development Agency (SIDA), launched a comprehensive approach to protect, promote and support breastfeeding with the 1990 Innocenti Meeting and Declaration.[1] This document called for the implementation of Ten Steps to Successful Breastfeeding[2,3] to strengthen health care practices, along with calls for national committees, controls for formula marketing, and paid maternity leave. The Ten Steps have been shown to have a direct impact on breastfeeding rates at the hospital, national, and international level (see the box on the next page).[4–13] The Baby-Friendly Hospital Initiative (BFHI) was introduced in 1991 as a method to encourage national support and to recognize hospital-level adherence to all Ten Steps. Over the years, more than 22 000 health care facilities in more than 150 countries around the world have been designated "baby friendly" by global and national BFHI approaches, representing about 28% of all maternity facilities worldwide.[14a,b,15] Nonetheless, only about 5% of facilities in the United States are designated as baby friendly.

Possible reasons for the slow progress in the United States include (1) the previously limited recognition by US health professionals and health professional organizations of the importance of breastfeeding, (2) assumptions by hospitals serving low-wealth and minority populations that their patients would not be interested in breastfeeding, (3) general lack of interest in this issue among hospital staff and administration, and (4) the complexity and costs of the US-based approach to designation provided by Breastfeeding Friendly USA (BFUSA), a nongovernment organization designed for this purpose.[16]

To address the first and second of these concerns, the Carolina Global Breastfeeding Institute's Breastfeeding-Friendly Healthcare project (CGBI/BFHC) was designed to support the Ten Steps in a set of hospitals located across North Carolina that serve low-income populations.[17] The overall purpose of this project is to increase breastfeeding initiation, exclusivity, and duration and reduce inequity in breastfeeding support by supporting hospitals to make improvements in the quality of breastfeeding support services by implementing the Ten Steps. CGBI/BFHC offered the opportunity to further explore the steps individually and as they relate to breastfeeding patterns.

## METHODS

The CGBI/BFHC was developed to support the implementation of the Ten Steps. CGBI/BFHC includes a quasi-experimental operational research design with pretest and posttest measurement; such operational research designs are used to study the implementation of new practices in situations where random assignment of individuals to the various treatment states is unfeasible.[18–20] Hospitals participating in CGBI/BFHC were systematically assigned to 1 of 2 treatment groups: phase 1, during which hospitals carry out baseline data collection and feedback, and receive the intervention during the first period of time—in this case, 2009 through 2010—and phase 2, during which hospitals carry out baseline data collection and feedback, but no further intervention in the first period of time, and received a modified intervention during the second round, 2010 through 2011, based on lessons learned during the first round. Systematic assignment of the 6 hospitals included in the research was based on 3 initially available hospital characteristics: urbanicity, size, and whether it was a teaching hospital. These criteria were used to create the 2 comparable groups. During the first time period, phase 2 hospitals will serve as the control group for phase 1 hospitals. A group of additional hospitals that approached us for support were included as

# Breastfeeding-Friendly Healthcare Project

## Implementing the Ten Steps for Successful Breastfeeding in Hospitals Serving Low-Wealth Patients

Emily C. Taylor, MPH, Nathan C. Nickel, PhD, MPH, and Miriam H. Labbok, MD, MPH

- Practice of Steps varied by hospital size and type.
- Understanding about the Steps was limited at baseline.
- Certain Steps were associated with Any BF:
  - Step 1: Policy
  - Step 2: Training
  - Step 6: No Supplements
  - Step 9: Pacifiers

# Breastfeeding-Friendly Healthcare Project

## Implementing the Ten Steps for Successful Breastfeeding in Hospitals Serving Low-Wealth Patients

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- Certain Steps were associated with Exclusive BF:
  - Step 1: Policy
  - Step 2: Training
  - Step 4: Skin-to-Skin
  - Step 6: No Supplements
  - Step 9: Pacifiers

# Breastfeeding-Friendly Healthcare Project

## Implementing the Ten Steps for Successful Breastfeeding in Hospitals Serving Low-Wealth Patients

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- Misconceptions about the Ten Steps were common
- Little to no data on breastfeeding

## Breastfeeding-Friendly Healthcare Project

- 2009 Baseline Assessment
  - Maternity practices with respect to the Ten Steps
  - Breastfeeding Rates
  - How these vary by contextual factors.

- Factors that impact readiness to implement the Steps

Midwifery ▮ (▮▮▮▮) ▮▮–▮▮

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# Applying organisation theory to understand barriers and facilitators to the implementation of baby-friendly: A multisite qualitative study

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ABSTRACT

*Objectives:* (a) to apply an organisation-level, pre-implementation theory to identify and describe factors that may impact hospitals' readiness to achieve the Ten Steps and (b) to explore whether/how these factors vary across hospitals.

*Design:* a multisite, descriptive, qualitative study of eight hospitals that used semi-structured interviews of health-care professionals. Template analyses identified factors that related to organisation-level theory. Cross-site comparative analyses explored how factors varied across hospitals.

*Setting:* thirty-four health-care professionals from eight North Carolina hospitals serving low-wealth populations. The hospitals are participating in a quality improvement project to support the implementation of the Ten Steps. This study occurred during the pre-implementation phase.

*Findings:* several factors emerged relating to collective efficacy (i.e., the shared belief that the group, as a whole, is able to implement the Steps) and collective commitment (i.e., the shared belief that the group, as a whole, is committed to implementing the Steps) to implement the Ten Steps. Factors relating to both constructs included 'staff age/experience,' 'perceptions of forcing versus supporting mothers,' 'perceptions of mothers' culture,' and 'reliance on lactation consultants.' Factors relating to commitment included 'night versus day shift,' 'management support,' 'change champions,' 'observing mothers utilize breastfeeding support.' Factors relating to efficacy included 'staffing,' 'trainings,' and 'visitors in room.' Commitment-factors were more salient than efficacy-factors among the three large hospitals. Efficacy-factors were more salient than commitment-factors among the smaller hospitals.

*Key conclusions and implications for practice:* interventions focused on implementing the Ten Step may benefit from improving collective efficacy and collective commitment. Potential approaches could include skills-based, hands-on training highlighting benefits for mothers, staff, and the hospital, and addressing context-specific misconceptions about the Steps.



## Introduction

Breastfeeding is associated with improved maternal and child health (Ip et al., 2007; Ram et al., 2008; Stuebe et al., 2009; Schwarz et al., 2010a, 2010b; Stuebe et al., 2011; McClure et al., 2012). Supporting breastfeeding is an effective strategy for reducing health-care costs and disease burden (Jones et al., 2003; Bartick and Reinhold, 2010). UNICEF and the World Health Organization (WHO) developed the Baby-friendly Hospital Initiative to support implementation of maternity practices to support and protect breastfeeding: the Ten Steps to Successful Breastfeeding, herein referred to as the Ten Steps (World Health Organization and UNICEF, 1989, 2009) (Table 1). The Ten Steps

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# Breastfeeding-Friendly Healthcare Project

Qualitative study to identify factors that impact:

- Collective commitment to implement the Ten Steps
- Collective efficacy to implement the Ten Steps

## Breastfeeding-Friendly Healthcare Project

Among the eight BFHC hospitals:

Factors Relating to Collective Efficacy and Commitment

- Staff Experience
- Forcing vs. Supporting Mothers
- Perceptions re: Mothers' Culture
- Relying on IBCLCs

## Breastfeeding-Friendly Healthcare Project

Among the eight BFHC hospitals:

Factors Relating to Collective Commitment

- Night vs. Day Shift
- Management Support
- Change Champions
- Mothers Using Breastfeeding Support

## Breastfeeding-Friendly Healthcare Project

Among the eight BFHC hospitals:

Factors Relating to Collective Efficacy

- Staffing
- Training
- Visitors in Room

# Breastfeeding-Friendly Healthcare Project—Intervention

- Feedback: Hospital Reports
  - Step Practice
  - Factors Relating to Organizational Readiness to Change
  - Breastfeeding Rates

## Breastfeeding-Friendly Healthcare Project

# Comprehensive Assessment 2011: Findings and Proposed Next Steps

---

## EXAMPLE HOSPITAL

---

# Step Seven:
# Practice Rooming-In (dyads remain together 24 hours per day).

## Assessment Score: 85

**Findings**

- Rooming in starts immediately following Example Hospitalomplicated vaginal delivery, and within one hour of when a cesarean mother can respond to her baby. By policy, infants may not remain in the nursery for greater than two hours at a time, regardless of feeding method.
- Many (68%) respondents report that between 0 and 20% of healthy-full term infants in their care go to the nursery during transitions.
- Among clinical staff, 92% agree that healthy, full-term infants are better off rooming-in with their mothers rather than going to the nursery.
- Most (96%) of survey respondents indicated staff were committed to encouraging rooming-in.
- Example Hospital recently hired two night-shift IBCLCs to ensure adequate breastfeeding-support during this time period.
- Key Informants have identified "resistors" to rooming-in and delayed bath. Management is aware of the situation, and has plans to take immediate action.

**Suggested Next Steps**

For adherence to Step Seven:

# Breastfeeding-Friendly Healthcare Project—Intervention

- Feedback: Hospital Reports
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  - Breastfeeding Rates
- Training: MDs and Hospital Staff

# Breastfeeding-Friendly Healthcare Project—Intervention

- Feedback: Hospital Reports
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  - Breastfeeding Rates
- Training: MDs and Hospital Staff
- Technical Assistance: On-site, via phone, web

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- Home
- Resources
- Forums
- Calendar
- CGBI Main
- Search
- Messages
- Elluminate Live! Bridge
- Help

## Breastfeeding Friendly Healthcare Project

**Welcome to Your Breastfeeding-Friendly Healthcare Web Portal!**

Breastfeeding-Friendly HEALTHCARE

*An Initiative of the* Carolina Global Breastfeeding Institute

**Breastfeeding-friendly Healthcare (BFHC) is an important translational research project designed to support North Carolina hospitals' efforts to implement the *Ten Steps to Successful Breastfeeding* and to define best practices for impactful and sustainable implementation of the *Ten Steps*.**

## Recent Announcements

**Announcements** (viewing announcements from the last 10 days)

There are currently no announcements at this location.

## Message Center Notifications

| | |
|---|---|
| New Messages | none |
| New in Forums | 3 |

## Calendar

Options

< Today >

**February, 2013**

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|
| *27* | *28* | *29* | *30* | *31* | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | *1* | *2* |

## Resources

Site Resources | Upload-Download Multiple Resources

**Location:** Breastfeeding Friendly Healthcare Resources

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| Title | | Access | Created By | Modified | Size |
|---|---|---|---|---|---|
| Breastfeeding Friendly Healthcare Resources | Actions | | | | |
| Evidence | Actions | Entire site | Emily Taylor | May 7, 2011 11:11 pm | 2 items |
| Training Materials | Actions | Entire site | Emily Taylor | Apr 29, 2011 11:43 am | 3 items |
| Handouts for Maternity Care Professionals | Actions | Entire site | Emily Taylor | Apr 29, 2011 11:42 am | 1 item |
| Handouts for Mothers | Actions | Entire site | Emily Taylor | Apr 29, 2011 11:42 am | 2 items |
| Protocols and Guidelines | Actions | Entire site | Emily Taylor | May 8, 2011 10:24 pm | 8 items |
| Creating Meaningful Policy | Actions | Entire site | Emily Taylor | May 8, 2011 10:54 pm | 4 items |
| National and Professional Org. Policies | Actions | Entire site | Emily Taylor | May 8, 2011 10:09 pm | 4 items |
| Links to Outside Resources | Actions | Entire site | Emily Taylor | May 9, 2011 3:31 pm | 5 items |
| Hospital Workspace | Add, Actions | Entire site | Emily Taylor | May 10, 2011 4:45 pm | 7 items |
| Hospitals Sharing Materials | Actions | Entire site | Emily Taylor | Jun 2, 2011 2:41 pm | 2 items |
| Badge Cards | Actions | Entire site | Emily Taylor | Jan 4, 2012 11:00 am | 2 items |
| Materials for Posting / Sharing Widely | Actions | Entire site | Emily Taylor | Jan 4, 2012 11:10 am | 1 item |
| Train the Trainer Prep Folder - Instructors Only | Add, Actions | Select group(s) | Emily Taylor | Jan 5, 2012 10:41 am | 10 items |
| Webinar Materials | Actions | Entire site | Emily Taylor | May 14, 2012 1:40 pm | 10 items |

# Breastfeeding-Friendly Healthcare Project—Intervention

- Feedback: Hospital Reports
  - Step Practice
  - Factors Relating to Organizational Readiness to Change
  - Breastfeeding Rates
- Training: MDs and Hospital Staff
- Technical Assistance: On-site, via phone, web
- Collaboration:
  - Monthly webinars
  - Semi-annual Leadership Retreats


Thank
You!

# Breastfeeding-Friendly Healthcare Project—Intervention

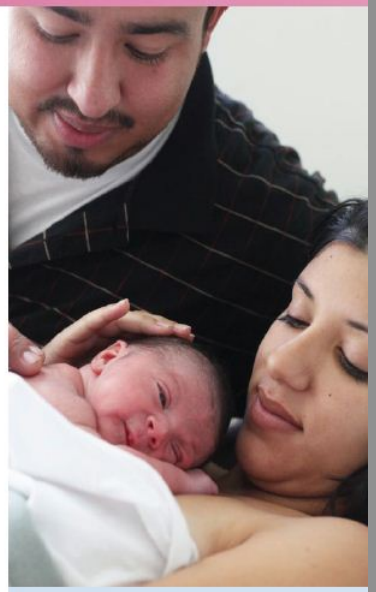
- Feedback: Hospital Reports
  - Step Practice
  - Factors Relating to Organizational Readiness to Change
  - Breastfeeding Rates
- Training: MDs and Hospital Staff
- Technical Assistance: On-site, via phone, web
- Collaboration:
  - Monthly webinars
  - Semi-annual Leadership Retreats
- Social Marketing / Mainstreaming

4

# **Skin-to-Skin Care:** A Guide for Healthcare Professionals

**STEP FOUR:** HELP MOTHERS INITIATE BREASTFEEDING WITHIN ONE HOUR OF BIRTH

*"Skin-to-skin" is when a dry, naked newborn is placed against his mother's bare abdomen, and the two are covered with a blanket. Regardless of the feeding plan, skin-to-skin care is critical for achieving newborn homeostasis and thermoregulation in the first hours of life. Skin-to-skin care is the best practice we have to ensure that baby makes an easy transition to life outside of the womb and breastfeeding gets off to a good start.*



**Immediate and continuous skin-to-skin contact between mother and baby:**

- **Encourages the baby to adjust to life outside the womb**–research shows skin-to-skin results in:
  - Higher axillary temperatures for newborns–lowered risk for hypothermia
  - Lower, more stable respiratory rates for newborns
  - Higher blood glucose levels–lowered risk for hypoglycemia
  - Much quicker return to physiologically normal heart rate for newborns
- **Significantly decreases crying** in newborns
- **Decreases anxiety for mothers**
- **Increases mother's self-confidence** in her parenting ability, measured at hospital discharge
- **Stimulates maternal oxytocin to enhance uterine contractions**, access to colostrum and mother-baby bonding–allows mother and newborn to smell and feel each other
- **Encourages breastfeeding** and often little assistance is needed - the warmth, smell and closeness to the breast are associated with easier and longer breastfeeding

During skin-to-skin, the active and alert baby naturally kneads the breast, which makes mother's oxytocin increase, stimulating let down. When baby gets to suckling of the breast, the colostrum is there to reward her. Because humans will repeat satisfying behaviors, skin-to-skin time ensures a high frequency of feeds, helping prevent newborn jaundice and weight loss.

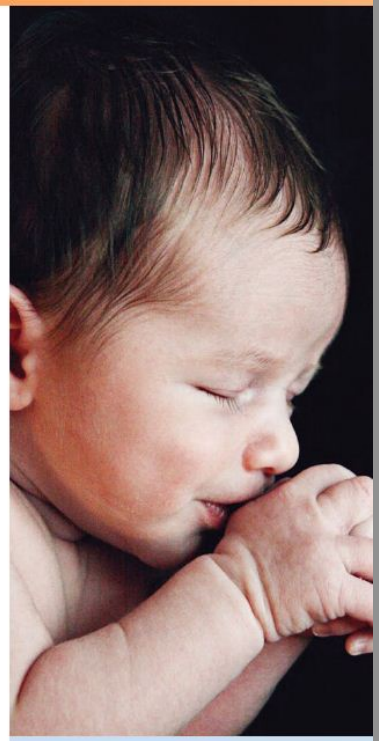
CONTINUED ON REVERSE...

Breastfeeding-Friendly HEALTHCARE
*An Initiative of the* Carolina Global Breastfeeding Institute

# **Eyes and Thighs:** A Guide for Healthcare Professionals

4

STEP FOUR: HELP MOTHERS INITIATE BREASTFEEDING WITHIN ONE HOUR OF BIRTH



## Vitamin K Injections for Newborns

Because newborns are born vitamin K deficient, most health organizations recommend administering vitamin K to prevent unexpected and/or excessive bleeding.

Many healthcare providers have requested clarification about North Carolina's requirements for administration of vitamin K. Many cite the myth that providers are legally bound to administer it immediately, even if it delays first feeding. This is not true. **No state or federal laws require administration of vitamin K.**

The American Academy of Pediatrics and the American Congress of Obstetricians and Gynecologists (AAP & ACOG) recommend administration within six hours of birth. As delayed and inadequate feeding is related to vitamin K deficiency bleeding (VKDB), both organizations emphasize the **importance of prioritizing first feeding within one hour of birth; vitamin K may be administered during or after the first feeding.**

## Newborn Eye Prophylaxis

To prevent gonococcal ophthalmia neonatorum, a prophylactic agent (usually 0.5% erythromycin or 1% tetracycline) should be applied topically to newborns' eyes.

North Carolina Law requires healthcare professionals to abide by CDC guidelines. **The CDC guidelines suggest instilling the prophylaxis into both eyes of all neonates within one hour of birth.** Also according to their guidelines, this prophylaxis should be done with mother and baby skin-to-skin.

**TIP: In order to balance first feed with other medical priorities, conduct newborn care while mother and baby are skin-to-skin. Even better, babies will stay more calm and comfortable if procedures are done while they breastfeed.**


References:
American Academy of Pediatrics Committee on Fetus and Newborn. Controversies concerning vitamin K and the newborn. American Academy of Pediatrics Committee on Fetus and Newborn. Pediatrics. 2003 Jul;112(1 Pt 1):191-2. (An ACOG Statement of Affirmation for this policy was published September 1, 2006).
10A NCAC 41A.0204 is amended as published in NCR 24:PP. 2256-2257 with changes as follows in: 10A NCAC 41A .0204 Control Measures–Sexually Transmitted Diseases
CDC. Sexually Transmitted Disease Treatment Guidelines - 2002. MMWR 2002;51(No. RR06); 1-80.


Breastfeeding-Friendly HEALTHCARE

*An initiative of the* Carolina Global Breastfeeding Institute


Carolina Global
Breastfeeding Institute
Breastfeeding-Friendly
Healthcare Centers Practice
The Ten Steps to Successful
Breastfeeding:

# Breastfeeding-Friendly Healthcare Project—Intervention

- Feedback: Hospital Reports
  - Step Practice
  - Factors Relating to Organizational Readiness to Change
  - Breastfeeding Rates
- Training: MDs and Hospital Staff
- Technical Assistance: On-site, via phone, web
- Collaboration:
  - Monthly webinars
  - Semi-annual Leadership Retreats
- Social Marketing / Mainstreaming
- Ban The Bags

North Carolina Breastfeeding Coalition

Logo created with appreciation to Renee Sadler at www.ren.sad.com

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Please consider a Donation to the N.C. Breastfeeding Coalition and support our mission.

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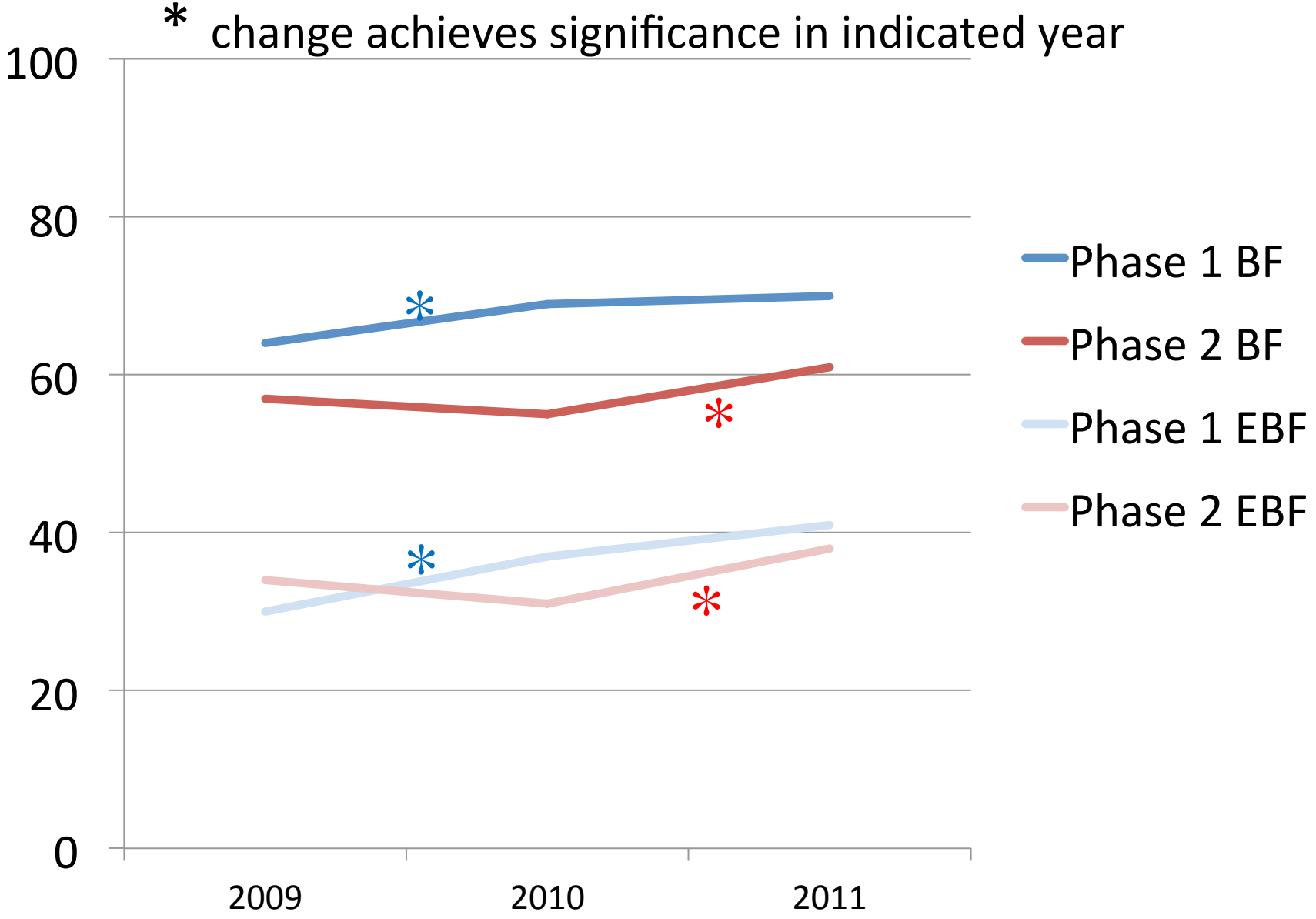
## BAN THE BAGS

### What are we banning?


For decades, infant formula companies have distributed bags containing formula samples, coupons, and other advertising to maternity patients. These "free gifts" are used to boost sales of formula at the expense of breastfeeding. The key to the success of this marketing strategy is the distribution by healthcare providers, which implicitly endorses the formula included in the bags.

http://www.ncbfc.org/index.php?option=com_content&view=category&id=40&Itemid=83

# Results: Change in Percent BF Initiation and EBF



# Breastfeeding-Friendly Healthcare Project—Intervention

- Qualitative Findings:
  - Training improved commitment:
    - Saw why breastfeeding is important
    - Saw why Ten Steps are important
  - Training had limited impact on efficacy
    - Hands on was helpful
    - Implementing in context was challenging
  - Technical Assistance
    - Someone to turn to for advice
    - Served as “cheer leader”

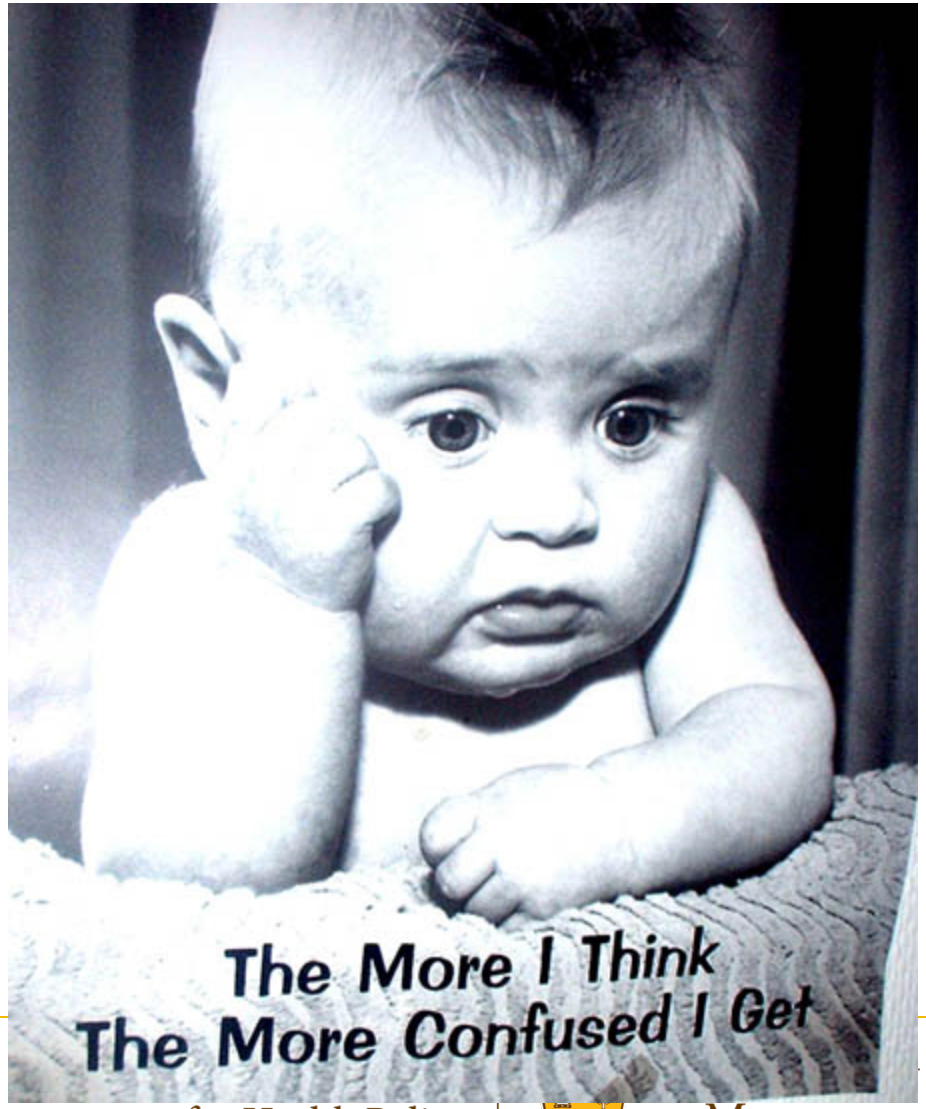
# Breastfeeding-Friendly Healthcare Project—Intervention

- Qualitative Findings:
  - Collaboration:
    - Webinars were helpful
    - Semi-annual leadership retreats were “shot in the arm”
  - Social Marketing
    - Well-designed, professional handouts appreciated
    - Easy to understand and refer to

# Breastfeeding-Friendly Healthcare Project—Intervention

- Still room for improvement
- Emily Taylor begin fellowship with Institute for Healthcare Improvement (IHI)
- Two hospitals served as IHI case study projects
- PDSA cycles for tough changes

# PDSA Processes

# PDSAs in Brief

1. Develop a change that will result in improvement
2. Test the change idea on small scales
3. Implement only when:
   - There is a **shared high degree of belief** that the change will lead to the desired improvement.
   - There is a **shared level of commitment** to implementing the change
   - There is **minimal concern** about the cost of failure.

# PDSAs: Plan One!

1. Gather at least you and one person.
2. Bring a blank copy of your PDSA form.
3. Decide on the first change you think might lead to an improvement.
4. Use the form to make a plan.

PDSA Cycle #____ Dates: beginning _____ ending _____ Cycle to: Develop / Test / Implement

P Plan
D Do
A Act
S Study

**Change Being Tested:**

**SMART Objective for this Cycle:**

**Plan**
Question(s) to answer for this cycle
Plan to carry out the cycle (4Ws + H)
Plan for data collection (4Ws + H)
Predictions for each question

**Do:**
Carry out the plan
Document problems and unexpected observations
Begin analysis of the data

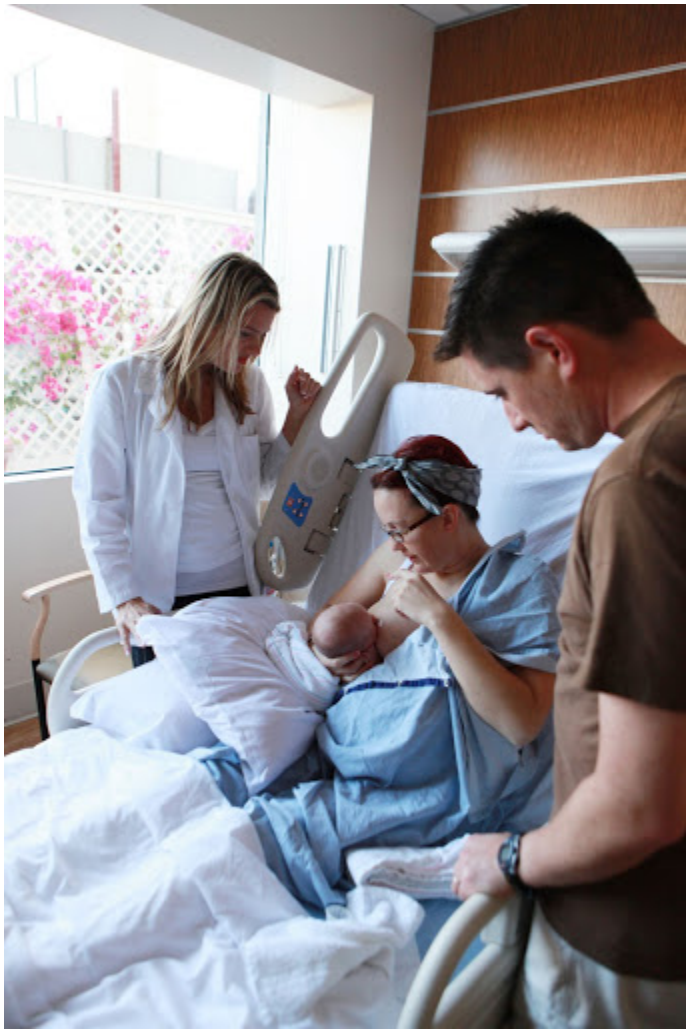
**Study**
Complete the analysis of the data
Compare data to predictions
Summarize what was learned

**Act**
What changes are to be made? Adopt, adapt, or abandon the change?
Plan for next cycle

Modified from: *The Improvement Guide 2nd Ed.* Langley GJ, Moen RD, Nolan KM, Nolan TW, Norman CL, Provost LP, page 447: Jossey-Bass, San Francisco, 2009.

# PDSAs: Do One!

1. Carry out your plan.
2. Document problems & observations on your form right away.



# PDSAs: Study One!

1. Look back at the measures you thought will help you know whether your change was an improvement.
2. Summarize what was learned.

# PDSAs: Acting On One

1. Decide what factors need to be changed for the next round; **or** decide how much to scale up if it was perfect.
2. Repeat the process until you are ready to implement (high belief, high commitment, low concern about cost of failure)

# PDSAs: Example Cycle 1

PDSA Cycle # 1 Dates: beginning 11/1/2013AM ending 11/1/2013AM Cycle to: Develop / Test / Implement

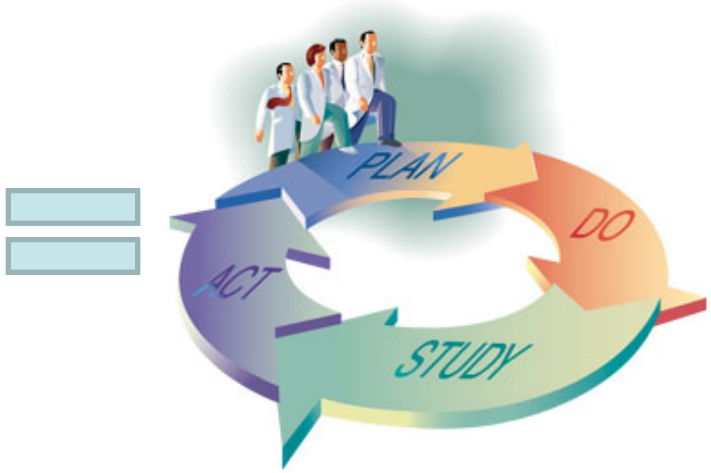

**Change Being Tested:**

Develop a change.
Reduce dyad separation due to newborn bath.

**SMART Objective for this Cycle:**

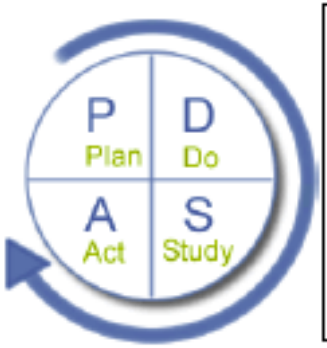
Detail current procedure for one newborn bath this morning.

| | |
|---|---|
| **Plan**<br>**Question(s) to answer for this cycle** | 1. How much time is the dyad separated for bath?<br>2. What materials are needed to give the bath?<br>3. Were there unnecessary delays in the process?<br>4. How did family feel about process?<br>5. What does RN like / not like about current process? |
| **Plan to carry out the cycle (4Ws + H)**<br>**Plan for data collection (4Ws + H)**<br>**Predictions for each question** | Plan: Observe. Reflect after dyad reunification. RN1 to record discreet variables. RN2 to report in qualitative. |
| **Do:**<br>**Carry out the plan**<br>**Document problems and unexpected observations**<br>**Begin analysis of the data** | Observation.<br>Significant delay due to newborn temperature drop, and current policy to use warmer rather return to mom for StS. |
| **Study**<br>**Complete the analysis of the data**<br>**Compare data to predictions**<br>**Summarize what was learned** | 83m separation. 6m-bathing. 7m-transport (people stop to see baby). 10m-preparing (running water to temp, gathering towels, etc.), 60m spent under warmer, until 2 normal temps recorded (took 30m to warm & next temp taken 30m later). Mom showered "glad & worried why it took so long." |
| **Act**<br>**What changes are to be made? Adopt, adapt, or abandon the change?**<br>**Plan for next cycle** | RN1 & 2 were surprised to see how long it actually took. RN1 wants to "create a cart for bathing in-room," but RN2 wants to observe 2 more to see if this is the norm. RNs agree to do 2 more, since census is low. |



# PDSAs: Example Cycle 2

PDSA Cycle # 2 Dates: beginning _____ ending _____ Cycle to: Develop / Test / Implement




**Change Being Tested:**

Develop a change.
Reduce dyad separation due to newborn bath.

**SMART Objective for this Cycle:**

Detail current procedure for 2 more newborn baths this morning.

| | |
|---|---|
| **Plan**<br>Question(s) to answer for this cycle<br>Plan to carry out the cycle (4Ws + H)<br>Plan for data collection (4Ws + H)<br>Predictions for each question | 1. How much time is the dyad separated for bath?<br>2. What materials are needed to give the bath?<br>3. Were there unnecessary delays in the process?<br>4. How did family feel about process?<br>5. What does RN like / not like about current process?<br><br>Plan: Observe. Reflect after dyad reunification. RN2 to record discreet variables. RN1 to report in qualitative. |
| **Do:**<br>Carry out the plan<br>Document problems and unexpected observations<br>Begin analysis of the data | Observation. |
| **Study**<br>Complete the analysis of the data<br>Compare data to predictions<br>Summarize what was learned | Baby 1 required warmer, then showed signs of cold stress, and RN2 fed formula (to EBF baby). Mother upset: "He was fine when you took him out."<br>Baby 2 went smoothly, but still took longer than predicted (29 minutes) due to prep and transport time. |

**Act**
What changes are to be made? Adopt, adapt, or abandon the change?

| | |
|---|---|
| Plan for next cycle | RN1 and RN2 disagree re: solution. RN1 = in-room cart. RN2 = make "no-stop policy" and create a bath station in the NBN. They agree to set out all supplies and warm water, get baby w/o stopping, and try again. |

# PDSAs: Example Cycle 3

PDSA Cycle # 3 Dates: beginning _____ ending _____ Cycle to: Develop / Test / Implement

P Plan D Do A Act S Study

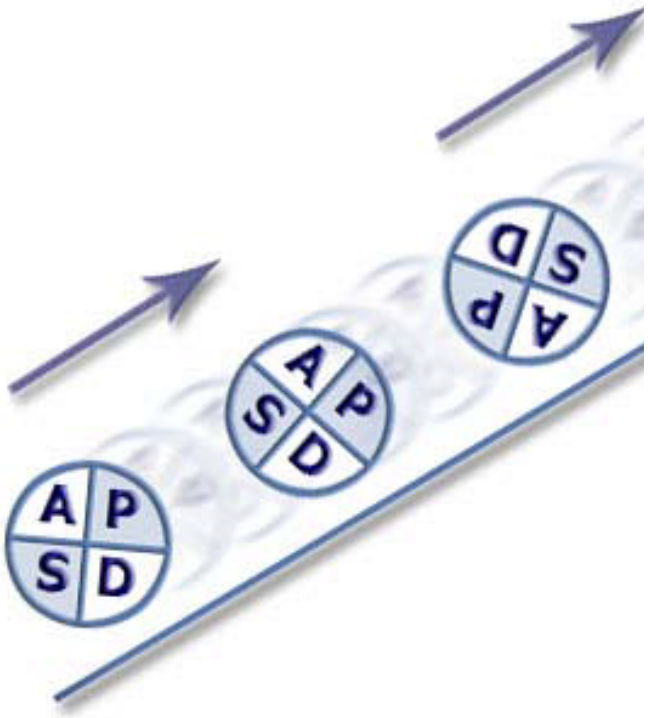
**Change Being Tested:**

Reduce dyad separation due to newborn bath with "no-stop" transport and prepped bathing area.

**SMART Objective for this Cycle:**

Test whether "no-stop" transport and prepped bathing area in NBN will decrease duration of separation, improve patient satisfaction, decrease cold temps.

| | |
|---|---|
| **Plan**<br>Question(s) to answer for this cycle<br>Plan to carry out the cycle (4Ws + H)<br>Plan for data collection (4Ws + H)<br>Predictions for each question | 1. How much time is the dyad separated for bath?<br>2. What materials are needed to give the bath?<br>3. Were there unnecessary delays in the process?<br>4. How did family feel about process?<br>5. What does RN like / not like about current process?<br>Plan: Prep. Observe. Reflect after dyad reunification.<br>RN2 to record discreet variables. RN1 to report in qualitative. x3 to see how it is once "kinks are out." |
| **Do:**<br>Carry out the plan<br>Document problems and unexpected observations<br>Begin analysis of the data | Observation.<br>Water warms up, and is cold by the time baby returns to NBN b/c of various delays (BFing, visitors, etc.).<br>Having supplies as "bath kits" was positive. |
| **Study**<br>Complete the analysis of the data<br>Compare data to predictions<br>Summarize what was learned | Average of 3: 2m - transport; 3m - prep, 4m bathing, 4m drying, diapering and taking temp, 2m transport.<br>Mom 1: "I would like to do it in here so I can learn."<br>Mom 2: "I like choice; I rest while baby goes to spa."<br>Mom 3: "I don't understand why we have to bathe him at all. |
| **Act**<br>What changes are to be made? Adopt, adapt, or abandon the change?<br>Plan for next cycle | RNs agree - bathing in-room should be considered AND bathing in NBN should have "no-stop policy" and NBN bath kits prepped. RN2 will work on NBN scale-up to get best practice. RN1 will develop in-room test. |

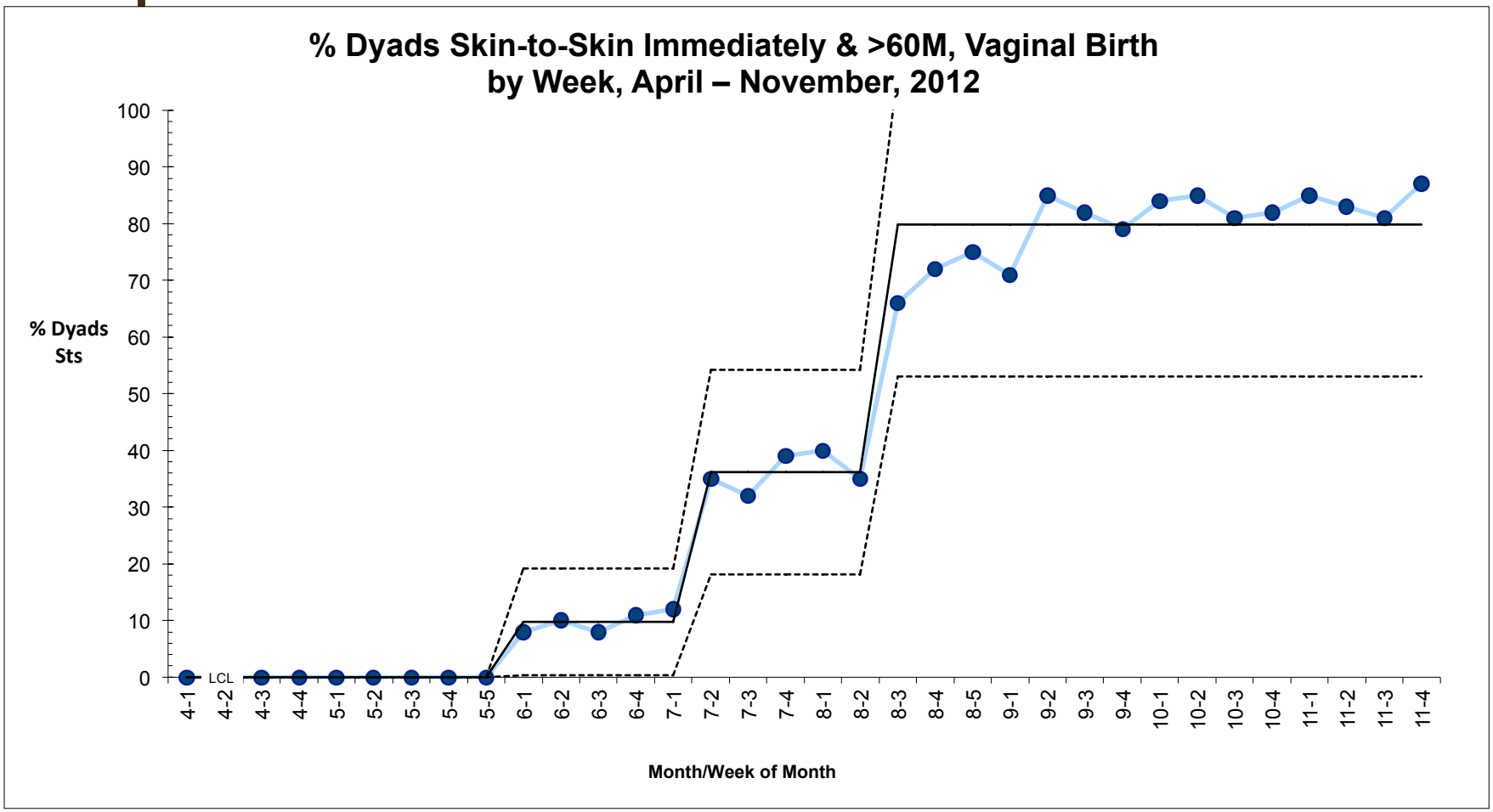


# We Made Improvements
# One Small Test of Change At A Time.

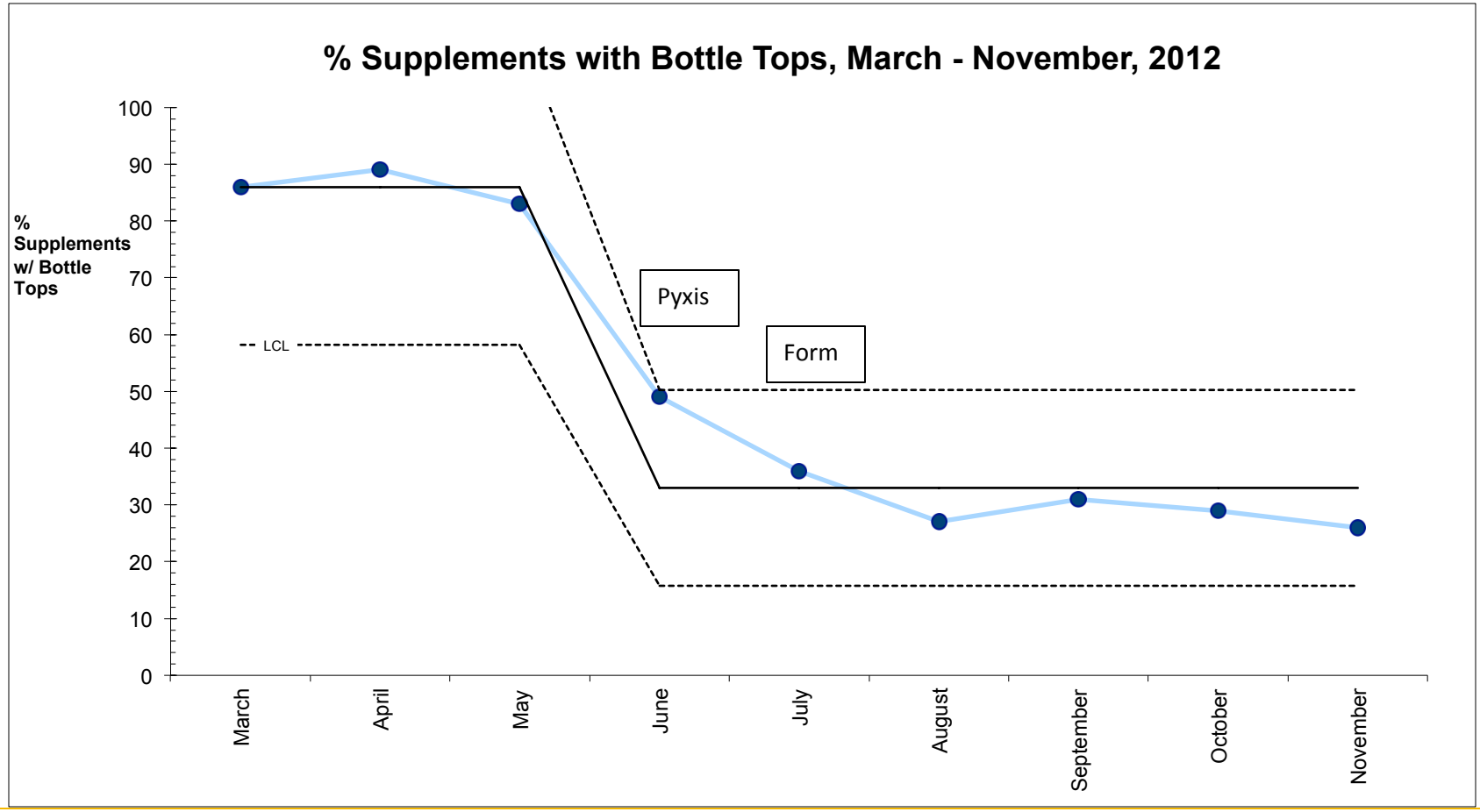
Some changes tested using PDSA cycles included:

1. Prenatal patient letters
2. Read, Set, Baby Job Aid (Prenatal Curriculum)
3. Skin-to-Skin workflow re-design
4. Skin-to-Skin patient education
5. Hand expression documentation
6. Documentation (of everything!) - MAJOR
7. Bath process re-design
8. Patient acknowledgement re: supplementation
9. Provider rounds in-room
10. Pyxis use for supply control of formula and feeding supplies
11. Whiteboard patient-provider communication system
12. Outpatient Lactation Clinic

# Step Four: Skin-to-Skin



# Step Eight: Bottle-Nipple Use



# Keys to Success Gleaned and Lessons Learned

- Intervention needs to be context specific; cannot be rigid.


TEN MINUTES EACH SIDE... ON YOUR MARKS, GET SET....
Neil

# Keys to Success Gleaned and Lessons Learned

- Intervention needs to be context specific; cannot be rigid.
- Training resulted in improvements, but only so far.
- Coaching is paramount.
- Shadowing is a great way to learn about current practice, and test changes.
- Scale up happens quickly when nurses are excited about their own discoveries, and are eager to share.

# Acknowledgements: Breastfeeding Taskforces & CGBI Ten Step Team




- Kate B. Reynolds Charitable Trust
- Duke Endowment
- CGBI Endowment

# Thank You!

# Questions

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REBEL PIONEER CREATOR EXPLORER TRAILBLAZER INNOVATOR

ADVENTURER EXPLORER ADVENTURER TRAILBLAZER REBEL PIONEER CREATOR EXPLORER REBEL PIONE

PIONEER CREATOR EXPLORER DEFENDER TRAILBLAZER REBEL PIONEER EXPLORER ADVENTURER TRAILBLAZER REBEL EXPLORER PIONEER DEFENDER TRAILBLAZER CREATOR


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